

## REMARKS

Claims 1, 2, 4-7 and 9-36 are pending in this application, and in the Office Action, the Examiner rejected all of these claims, under 35 U.S.C. 103 as being unpatentable over the prior art. In particular, Claims 1, 2, 4-7 and 9-34 were rejected as being unpatentable over U.S. Patent 6,598,230 (Ballhorn) in view of U.S. Patent 6,637,029 (Maissel, et al.) and U.S. Patent 6,131,086 (Walker, et al.). Claims 35 and 36 were rejected as being unpatentable over Ballhorn in view of Maissel, et al. and Walker, et al. and further in view of U.S. Patent 6,374,336 (Peters, et al.).

Applicants are submitting herewith a Request for Continued Examination (RCE) to continue the prosecution of this application.

Also, independent Claims 18, 25 and 29 are being amended to better define the subject matters of these claims. More specifically, Claim 18 is being amended to include the limitations of claims 35 and 36, and similar limitations are being added to Claims 25 and 29. Claims 35 and 36 are being cancelled. Claims 1-17 and 34 are also being cancelled to reduce the number of issues in this application. New claim 37, which is dependent from Claim 18, is being added to describe features of an embodiment of the invention.

For the reasons discussed in detail below, the prior art does not disclose or render obvious the subject matters of independent Claims 18, 25 and 29. In particular, it would not have been obvious to one of ordinary skill in the art to combine the references as the Examiner has done in order to make the claimed invention.

The present invention relates to procedures for monitoring or representing aspects of video-on-demand (VOD) services. More specifically, this invention relates to the use of a video display substantially facilitates the administration of the VOD services. This video display

enables the administrator of the VOD services to perform easily a large number of tasks that, without the video display, would be complex, difficult and time consuming

In one aspect of the invention, a system administrator of the video-on-demand system interacts with a visual display to configure and to monitor the connections between servers of the system and the customers. In particular, when one of the customers requests a video program, the system administrator interacts with nodes of the display to select one of the servers to provide that requested video program to that one of the customers. The administrator also interacts with the nodes to assign to the one of the customers one or more of a multitude of video data channels to configure a data path between the selected one of the servers and the video monitor of said one of the customers. This configured data path is then used for transmitting the requested video program from the selected one of the servers to the video monitor of the one of the customers for viewing by the customer.

With a second aspect of the present invention, a matrix is constructed from a pair of catalogs of elements of a video-on-demand system. Connection representations are formed for at least some of the cells of the matrix, and these connection representations may be used to represent a number of relationships. For instance, these connections may be used to show relationships between users and presentations, or between the video-on-demand equipment.

In this second aspect of the invention, the system administrator interacts with the matrix cells to configure and to monitor the connections between the servers and customers of the system. For instance, when one of the customers requests a video program, the system administrator interacts with the cells of the matrix to select one of the servers to provide the requested video program to that one of the customers, and to assign to that customers one or

more of a multitude of video data channels to configure a video data path between the selected one of the servers and the video monitor of said one of the customers. This configured data path is then used for transmitting the requested video program from the selected one of the servers to the monitor of said one of the customers for viewing by that customer.

In another aspect of the invention, a tree representation is used to provide multilevel information about the video-on-demand system. A display showing a tree having a plurality of nodes may be generated, and information about video-on-demand services is embedded in these nodes. For example, the nodes may be embedded with information about the equipment used to provide the video-on-demand services, the users, or the video-on-demand programs themselves.

Independent Claim 18 describes a number of important features of the present invention. For instance, Claim 18 positively sets forth the step of creating a matrix of connection cells representing services provided by the VOD service provider, including the step of the system administrator interacting with the cells to configure and to monitor the connections between the servers of the VOD system and the customer video monitors. Claim 18 also positively sets forth the limitation that, when one of the customers requests a video program, the system administrator interacts with the cells of the matrix to configure a video data path between a selected server and the video monitor of the customer for transmitting the requested video program.

Claim 18, as presented herewith, now includes the limitation, previously in Claim 35, that multiple presentations flow between one primary server and one secondary server, and these multiple presentations are represented by a stack of blocks shown on intersections of a matrix, where each of these blocks represents a different one of the multiple presentations.

The Examiner, in the last Office Action, needed to cite four different references in order to construct an argument putting together the above-identified features would have been obvious to one of ordinary skill in the art.

The fact that the Examiner had to rely on four references, however, argues that it would not have been obvious to one of ordinary skill in the art to make the invention. Applicants respectfully submit that the Examiner, in fact, is using the teachings of the present invention, in hindsight, to put together bits and pieces of different references. It is the teachings of the present invention, not the prior art, that the Examiner is using to identify portions of four references and assembling those pieces together to make the claimed invention.

The cited references are deficient in a number of important respects.

Specifically, Ballhorn discloses a multimedia box network having of a data server and a plurality of multimedia boxes. The network also includes at least one management station connected to the data server and to at least one of the multimedia boxes. While Ballhorn indicates that the disclosed network can be used to transmit image data or video data, this reference is primarily directed to distributing music to juke boxes.

Maissel discloses an electronic programming guide for use in television system. The television system includes a television network and transmitting apparatus for transmitting program schedule information to subscriber units. The subscriber units include a receiving unit for receiving the program schedule information from the television network, a profile storage unit for storing a viewer preference profile, and an agent for customizing the program schedule information based on the viewer preference profile.

As the Examiner has recognized, there are a number of important differences between the present invention and the combined disclosures of Ballhorn and Maissel, et al. In order to overcome these deficiencies of Ballhorn and Maissel, et al. as references, the Examiner relies on Walker, et al. and Peters.

Walker discloses a system that allows television viewers to buy products shown on television programs. In this system, a central controller 110 receives product data and entertainment program data from remote terminals 150 and stores this data in a memory. Also, viewer interface 120 transmits a product request to a corresponding interactive voice response Unit (IVRU) 130 and operator terminal 140, each of which may be located in a call service center.

The product request describes a particular product of interest to the viewer, and an operator at operator terminal 140 then transmits program description data corresponding to the request to central controller 110. This controller, after accessing the product and program data stored in its memory, transmits product identification data back to operator terminal 140, and this data are provided to viewer interface 120. If the viewer decides to purchase a product, controller 110 then transmits product order data to vendor facility 160, and this facility routes the purchased product to the viewer.

There is a very important difference, however, between the product distribution procedure shown in Walker, et al and the distribution procedure of the present invention. The Walker, et al. system is used to sell products that are shown in television program, not the television programs themselves. In the present invention, in contrast, the television programs themselves are sent to the viewers.

Peters, et al. was cited for its disclosure of a computer system for transferring multiple streams of data and a catalog manager that stores different catalogs on different storage units. This reference describes a procedure for transferring multiple high bandwidth streams of data between multiple storage units. There is no disclosure or suggestion in Peters, et al, though, of enabling the administrator of a video-on-demand system to configure and to monitor customer connections by interacting with displayed tree nodes or matrix cells.

Peters, et al, was applied against Claim 36, the limitation of which is herein being added to Claim 18. Importantly, this limitation is not simply that multiple presentations flow between the primary and secondary servers, but that these multiple presentations are represented in a video display in a specific way – by a stack of blocks shown on a cell of a matrix display, with each block representing a different one of the multiple presentations. This Peters, et al, does not show.

Because of the differences between Claim 18 and the prior art, it would not have been obvious to one of ordinary skill in the art to cobble together the various references cited by the Examiner to make the claimed invention.

The same is true of independent Claims 25 and 29.

For instance, Claim 25 positively sets forth the limitation that, when one of the customers requests a video program, the system administrator interacts with the matrix module or the matrix cells (i) to select one of the servers to provide the requested video program to that one of the customers and (ii) to assign to the one of the customers one or more of a multitude of video data channels to configure a video data path between the selected one of the servers and the video monitor of said one of the customers, where this channel is then used for transmitting the

requested video program from the selected one of the servers to the video monitor of said one of the customers for viewing by that customer.

Claim 29 also describes the feature that the system administrator interacts with the nodes of the tree display, when one of the customers requests a video program, (i) to select one of the servers to provide the requested video program to that one of the customers and (ii) to assign to the one of the customers one or more of a multitude of video data channels to configure a video data path between the selected one of the servers and the video monitor of said one of the customers, where this channel is then used for transmitting the requested video program from the selected one of the servers to the video monitor of said one of the customers for viewing by that customer.

In view of the above-discussed differences between Claims 18, 25 and 29 and the prior art, and because of the advantages associated with those differences, Claims 18, 25 and 29 patentably distinguish over the prior art and are allowable. Claims 19-23 and 37 are dependent from, and are allowable with, Claim 18; and Claims 26-28 are dependent from Claim 25 and are allowable therewith. Also, Claim 30 is dependent from, and is allowable with, Claim 29; and Claims 24 and 31 incorporate by reference, and are allowable with, Claims 18 and 30 respectively. Claims 31-33 are dependent from Claim 30 and are allowable therewith.

The Examiner is. Accordingly, respectfully requested to reconsider and to withdraw the rejection of Claims 18-33 under 35 U.S.C. §103, and to allow these claims and new Claim 37.

If the Examiner believes that a telephone conference with Applicants' Attorneys would be advantageous to the disposition of this case, the Examiner is asked to telephone the undersigned.

Respectfully Submitted,

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